

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

ANDREW CORPORATION,)
)
)
Plaintiff,)
)
)
v.) No. 04 C 6214
)
)
BEVERLY MANUFACTURING COMPANY,)
)
)
Defendant.)

MEMORANDUM OPINION AND ORDER
REGARDING CONSTRUCTION OF DISPUTED CLAIM TERMS

JAMES F. HOLDERMAN, Chief Judge:

On August 31, 2005, plaintiff Andrew Corporation (“Andrew”), filed its first amended complaint alleging that defendant Beverly Manufacturing Company, (“Beverly”), infringed three of Andrew’s patents: United States Patents Nos. 6,354,543 B1 (“the ‘543 patent”); 6,899,305 B2 (“the ‘305 patent”)¹; and 5,850,056 (“the ‘056 patent”). (Dkt. No. 74). Patents ‘543 and ‘305 relate to cable hangers used in telecommunication towers, and patent ‘056 involves a grounding device used in cell phone towers. The parties dispute the meanings of certain terms in the patent claims and seek the court’s construction of these terms. Beverly additionally filed on May 8, 2006 a pending motion to supplement its memorandum in support of its proposed claim construction. (Dkt. No. 174). The court heard oral arguments from each side on November 21, 2006. In this opinion, this court construes the disputed claim terms in the three patents. The court also grants Beverly’s motion to supplement and sustains Beverly’s objections (Dkt. No.

¹The ‘305 Patent is a continuation-in-part of the ‘543 patent.

198) to the inclusion by Andrew of excerpts of Beverly's patents.

BACKGROUND

I. The '543 and '305 Patents

Andrew's '543 and '305 Patents, issued on March 12, 2002 and May 31, 2005 respectively, are each entitled "Stackable Transmission Line Hanger."² Transmission line hangers primarily secure telecommunications cables to communication towers or other support structures and typically have a retention section through which one or more telecommunication cables run. (Exs. 1 &2, Col. 1.) In prior art, transmission hangers attached to a supporting structure or to another transmission structure through additional hardware. (*Id.* at Cols. 1 &2.) The '543 and '305 patents were meant to address "a need for a novel stackable transmission line hanger that is easy to install, easy to add addition[al] transmission lines thereto and inexpensive to manufacture" without the additional hardware needed by the prior art. (*Id.* at Col. 2.)

The abstracts of Andrew's '543 and '341 patents are identical:

In one aspect, a stackable transmission line hanger is provided for securing one or more transmission lines to a supporting structure. Each such hanger includes a transmission line retention section for accommodating a transmission line and a mounting section extending from the transmission line retention section, the mounting section including a mounting hole disposed therein. The transmission line retention section includes a first leg and a second leg extending therefrom, the first and second legs allowing the hanger to accommodate various sizes of transmission lines. The first and second legs each include a locking barb configured to lock against an attachment surface.

(Exs. 1 & 2.)

²The '543 patent is exhibit 1 and the '305 patent is Exhibit 2 to Andrew Corporation's Memorandum in Support of its Proposed Claim Construction. Hereinafter, the '543 patent will be cited as "Ex. 1" and the '305 patent will be cited as "Ex. 2." When the language in both patents is identical, the court will cite to "Exs. 1 &2."

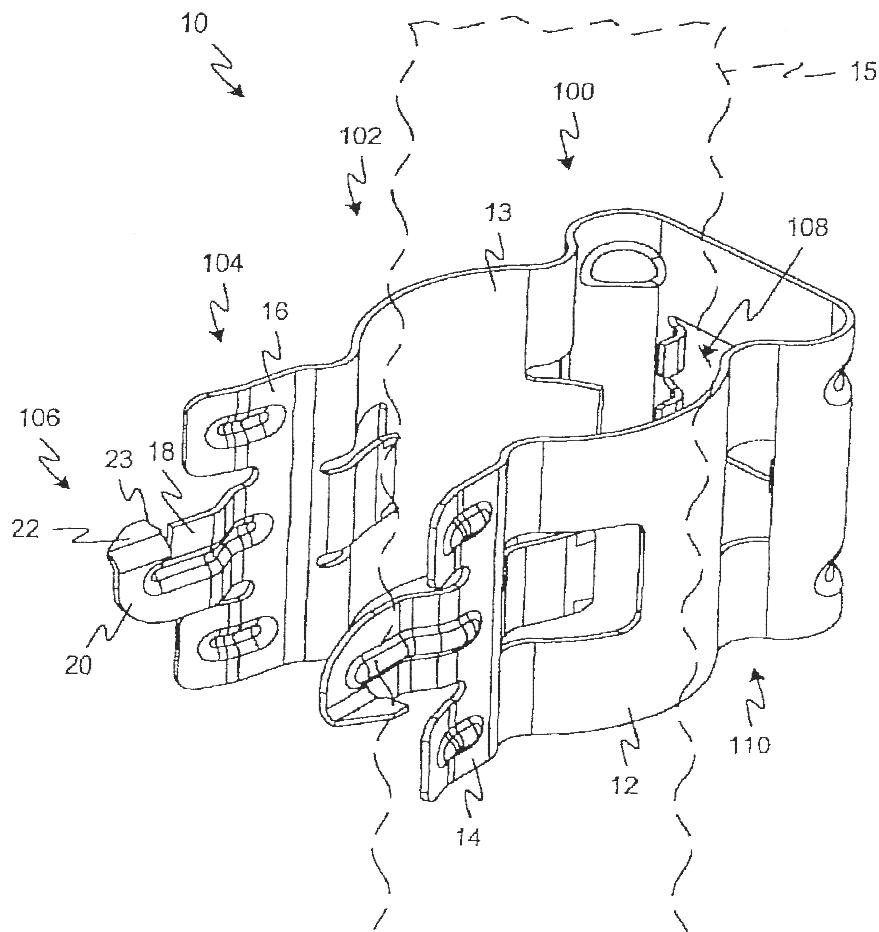


Figure 1 of the drawings of Andrew's '543 and '341 patents are also identical:

FIG. 1

II. The '056 Patent

The Andrew '056 Patent is entitled "Grounding Kit for a Transmission Line Cable Including a Clip, a Bail and a Housing," and is used to protect a transmission wires on a communications tower from the effects of lightning strikes. (Pl. Mem. Ex. 3, hereinafter "Ex.

3.”) The Grounding Kit attaches to a transmission line cable having a portion of its outer jacket removed to reveal an exposed section of its conduct, so that the transmission wire maintains close contact with the protective grounding wire while protecting the exposed conductor from the environment. (Ex. 3 at Col. 1, ln. 10-28.) The prior art is differentiated from the patent in that a “need exists for a durable grounding kit for transmission line cables that maintains high contact pressure with the cable over extended periods of time and after being subjected to multiple high-power conditions,” and that “a need exists for a sealing device that provides a reliable seal over the exposed section of the cable to which the ground wire is attached.” (Pl. Mem. Ex. 3, cols. 1 &2, ln. 63-2, hereinafter “Ex. 3.”)

The relevant portions of the abstract for the ‘056 patent are as follows:

A grounding kit for a transmission line cable having a portion of its outer jacket removed to reveal an exposed section of its conductor is set forth. The grounding kit includes a clip, a bail and a housing. The clip has a fulcrum portion and means for connecting the clip to a ground wire. The clip encompasses a part of the exposed section of the conductor. The bail includes a mounting element pivotably mounted on the fulcrum portion of the clip to permit rotation of the bail between an open and a closed position. The handle contacts the clip and forces the clip into clamping engagement with the exposed section of the conductor in response to the bail being rotated to a closed position.

(Ex. 3, abstract.)

LEGAL STANDARDS

Claim construction, “is a matter of law for the court to determine.” *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (1995) (en banc) *aff’d* 517 U.S. 370 (1996). The Federal Circuit’s recent en banc opinion in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005), set out the proper approach for claim construction. Reaffirming that there is no “magic formula” for conducting claim construction and that the sequence of steps used in consulting various sources is not important, *Phillips* explained that a judge should undertake claim

construction from the viewpoint a person of ordinary skill in the field of invention and determine how such a person would understand the claim at the time of invention. *Phillips*, 415 F.3d at 1313, 1324; see *On Demand Machine Corp. v. Ingram Indust., Inc.*, 442 F.3d 1331, 1337-38 (Fed. Cir. 2006). When interpreting the meaning of the claims and the claim terms, the *Phillips* decision directed judges to look toward several sources—the claims themselves, the specification, the prosecution history and prior art cited within, and when appropriate extrinsic evidence such as expert testimony, treatises, and dictionaries—placing the greatest weight on the claim language and the specification. *Phillips*, 415 F.3d at 1314-18. *Phillips* stated that “while extrinsic evidence can shed useful light on the relevant art, we have explained that it is less significant than the intrinsic record in determining the legally operative meaning of claim language.” *Phillips*, 415 F.3d at 1315, 1320-21.

The words of a claim are generally given their ordinary and customary meaning that a person of ordinary skill in the art in question at the effective date of filing would have used. *Old Town Canoe Co. v. Confluence Holdings Corp.*, 448 F.3d 1309, 1315 (Fed. Cir. 2006); *Phillips*, 415 F.3d at 1312-13; *Vitronics v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). The claim should be read in the context of the entire patent, including the specification, and not just in the context of the particular claim where the disputed term appears. *Phillips*, 415 F.3d at 1313-14.

Generally speaking, there is a heavy presumption that a claim term carries its ordinary and customary meaning. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002). That presumption, however, is rebuttable and the court may limit the ordinary meaning of a claim in certain circumstances. Where the specification reveals that an inventor has given a

different meaning to a term than its ordinary use, the inventor's lexicography governs. *Phillips*, 415 F.3d at 1316. Furthermore, if the specification and/or the prosecution history contain an intentional disclaimer or disavowal of the claim scope, the doctrine of prosecution disclaimer applies and the court may rely on that disclaimer or disavowal as an expression of the inventor's intent. *Id.* at 1316-17. Courts generally should not limit claims to the particular preferred embodiments in the specification, however, the preferred embodiments can shed light on the intended scope of the claims, and the inclusion of only one embodiment in the claim may "define the outer limits of the claim term or may merely [] be exemplary in nature." *Phillips*, 415 F.3d at 1323; *Astrazeneca AB v. Mut. Pharm. Co.*, 384 F.3d 1333, 1340 (Fed. Cir. 2004).

The court additionally may not apply the ordinary meaning to the claim term where the patentee phrases the claim in means-plus-function format, 35 U.S.C. § 112 ¶ 6; *Allen Eng'g Corp.*, 299 F.3d at 1347-48. Claims may be written in the means-plus-function form according to 35 U.S.C. § 112, ¶ 6, which reads as follows:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U.S.C. § 112, ¶ 6. "The use of the word 'means' 'triggers a presumption that the inventor used this term advisedly to invoke the statutory mandate for means-plus-function clauses' while the absence of the term 'means' triggers a strong presumption that the inventor did not mean to invoke a means plus function construction. *Allen Eng'g Corp.*, 299 F.3d at 1347 (citations omitted). This presumption that the word means was meant to invoke a means plus function construction may be overcome when the claim language either recites no function corresponding

to the means or describes sufficient structure or material for performing the structure. *Id.*

ANALYSIS

I. Beverly's Motion for Leave to Supplement its Memorandum in Support of Its Claim Construction

As a threshold matter, the court addresses the motion Beverly filed for leave to supplement its claim construction memorandum. Beverly sought to include for the court's review extrinsic evidence of the prosecution history of Beverly's pending U.S. Patent Application No. 10-640,181 ("the '181 Application")³ and an opinion letter from the law firm of Wood, Phillips, Katz, Clark & Mortimer ('Wood Phillips') that provides an opinion that Beverly is not infringing Andrew's '543 and '305 Patents. (Dkt. No. 174). Although the court will consider the intrinsic evidence of the three patents as primary, in accordance with *Phillips*, the court will review Beverly's offered material as extrinsic evidence if needed.

II. Disputed Claim Terms in Patents '543 and '305

A. "Locking Barb"

For the following reasons, this court construes the claim term "locking barb" in claims 1, 15, 31-33, and 37-38 of the '543 patent, and in claims 1 and 14 of the '305 patent to mean:

A locking device or detent that contacts an attachment surface at at least one point.

The parties agree that a locking barb is a locking device on the transmission hanger that contacts an attachment surface of either another stackable hanger or an attachment surface, such as a telecommunications tower. The dispute is whether a locking barb contemplated to be

³The court, however, grants Beverly's objections (Dkt. No. 198) to the inclusion by Andrew of excerpts from Beverly's own patents in the evidence Andrew submitted to the court during oral argument on November 21, 2006. All references to renditions of Beverly's patents submitted by Andrew are stricken.

located on the legs of the stackable transmission hanger is the same as a detent, as Andrew claims, or a non-detent type locking device, as Beverly claims. Andrew contends that there is nothing in the claims, specification, or prosecution history to limit the ordinary meaning of the term “locking barb” to a non-detent type device. In contrast, Beverly argues that the locking barb is an attempt to “overcome the limitations associated with the prior art detent locking devices,” and that the specifications in the ‘543 and ‘305 patents “clearly teaches the advantages of the claimed locked barbs over the prior art devices. (Def. Mem. at 7, 8.)

Contrary to Beverly’s interpretation of the specification of both the ‘543 and the ‘305 patents, the court does not find that the locking barb was meant to be a locking device that was superior to the prior detent. Instead, the patent distinguishes the prior art only with regard to the superiority of the two-locking barb design as compared to the prior four-locking-barb design for reducing resistance. (Ex. 1 at Col. 7; Ex. 2 at Col. 8.) *Cf. Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 1159 (Fed. Cir. 1998) (construing limitation in term where “the specification clearly suggests the contrary [, that shapes other than conical are necessarily part of the disclosure,] by asserting the advantages of the conical shape over prior art shapes.” (brackets added)). The novelty of the patents does not relate to the locking barbs as opposed to detents. The novelty of the patents is the easy installation of one-piece, stackable transmission line hangers capable of accommodating a large number of transmission lines. (Exs. 1 & 2, Col. 3.) Additionally, there is no language in the claims or specifications of either the ‘543 or ‘305 patents to suggest that a locking barb is different from a detent, nor does the prosecution history restrict the locking barb’s definition. Hence, the intrinsic evidence does not import limitations into the ordinary meaning of the term.

Nor does the court accept Beverly's contention the term locking barb in the '543 patent should be construed differently than the same term in the '305 patent based on the teachings of the specifications. As identified by Beverly, the '543 patent specification states that "Each locking barb includes a barb contact point for contacting the attachment surface," while the '305 patent adds that "Each locking barb includes a barb contact point *or line* for contacting the attachment surface." (emphasis added) (Ex. 1 at Col. 5; Ex. 2 at Col. 6.) In oral arguments, Beverly clarified that it considered the difference between the '543 and the '305 patents to be that "[t]he '305 patent is focused on multiple contacts. The '543 is focused on a single contact." (Tr. 40, ln. 15-6.) But the additional phrase of "or line" and any references to multiple points in the '305 patent specification are not enough to suggest that locking barb should be construed as different from the '543 patent. *Phillips* and other Federal Circuit cases instruct that the district courts should not generally rely on preferred embodiments in the specifications to confine claims unless the embodiment defines the outer limit of the claim. *Phillips*, 415 F.3d at 1323. There is nothing to support interpreting the specification in the '543 patent to define the outer limit of the claim term locking barb as limited to contact at a point as opposed to a line or multiple points. Moreover, the court's construction of locking barb to mean "a locking device or detent that contacts an attachment surface at at least one point" may include a preferred embodiment of either a point, a line, or multiple points.

Beverly additionally argues that the court should limit the locking barb to a structure equivalent to a notch that locks two transmission hangers together, as described in the specifications, asserting that there is no other reasonable structure for locking together two transmission hangers. Again, Beverly errs in seeking to limit the claims to a particular

embodiment in the specifications despite the Federal Circuit’s warning against this limitation when there is no evidence in the specification, claims, or prosecution history to suggest that the embodiments in the specifications define the outer limits of the claim term . *See, e.g., Phillips*, 415 F.3d at 1323. Furthermore, the doctrine of claim differentiation, which holds that claims must be interpreted so that their differences are meaningful, requires the court to reject Beverly’s construction of a locking barb as having a structure equivalent to a notch when two transmission hangers are attached. *See Inpro II Licensing, S.A.R.L. v. T-Mobile USA, Inc.*, 450 F.3d 1350, 1354 (Fed. Cir. 2006). Only by rejecting Beverly’s construction can dependent claims, such as claim 5 in the ‘543 patent referring to a lip and a notch, be given separate meaning in comparison to those claims that do not refer to the lip and notch structure, such as claim 1 in the ‘543 patent. *See Curtiss-Wright Flow Control Corp. v. Velan, Inc.*, 438 F.3d 1374, 1380 (Fed. Cir. 2006) (explaining the presumption that independent claims do not include the limitations added by their dependent claims). The court also notes that nothing in the language of the ‘543 or the ‘305 patents suggests that the transmission hanger has a different structure when attached to another hanger instead of a tower structure.

B. “distal ends . . of the arms being structured to be urged toward each other and to lock into a common opening” in Claims 25 and 30⁴

For the reasons stated below, the court rejects Beverly’s construction of “distal ends . . of the arms being structured to be urged toward each other and to lock into a common opening” in

⁴Beverly quotes a different phrase to be construed in the table of its Memorandum on page 10 under the subheading regarding its Means Plus Function argument, but discusses the above-quoted phrase in its analysis and in its Proposed Claim Construction. (Def. Mem. Ex. 6). The different phrase appears to be a typographical error, and the court construes the above-quoted phrase.

Claims 25 and 30⁵ of the ‘305 patent as means plus function claims.

Beverly argues that claims 25 and 30 of the ‘305 patent do not identify a structure that allows the distal ends of the arms to perform the function of locking into a common opening and argues for the application of a means plus function construction to teach the way in which the arms should be structured. Beverly proposes the following means plus function construction for the phrase based on the structure described in the specification:

Arms having distal ends supporting a locking barb or equivalent structure that includes a line or contact point such that the locking barb locks against the attachment surface at two or more linear points or at a single contact point.

The locking barb further includes a notch or equivalent structure configured to lock against a lip or other surface associated with the attachment surface.

(Def. Mem. Ex. 6 at 8-9.) In essence, Beverly’s proposed construction reads into claims 25 and 30 the requirement of a locking barb device at the end of the distal arms. Additionally, Beverly treats the phrase “being structured to” as a substitute for the term “means for,” to argue that the claim teaches “a specified function without the recital of structure, material, or acts in support

⁵Claim 25 reads:

A stackable line hanger being composed of a resilient material and having a generally U-shaped body with arms that grip a line, distal ends of the arms being structured to be urged toward each other and to lock into a common opening in a line support or another line hanger, the hanger having a stacking provision located in a region where said arms are joined and configured to retentively engage a second hanger supporting a second line. (Ex. 2.)

Claim 30 reads:

A stack of line hangers comprising:
a first stackable line hanger being composed of a resilient material and having a generally U-shaped body with arms which grip a line, distal ends of which the arms being structured to be urged toward each other and to lock into a common opening in a line support or another line hanger, the hanger having a stacking provision; and a second stackable line hanger configured to lock onto the stacking provision so as to support a second line. (Ex. 2.)

thereof” within the meaning of 35 U.S.C. § 112, ¶ 6, and thus would sufficiently rebut the strong presumption against treating a phrase that does not use the word “means” as a means plus function clause. Andrew disputes Beverly’s construction, contending that the phrase has an understood meaning in the art and thus recites a sufficient structure, *see CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1369 (Fed. Cir. 2002).

Beverly does not overcome the strong presumption of the inapplicability of § 112, ¶ 6 to the disputed phrase. *See CCS Fitness*, 288 F.3d at 1369. That a particular mechanism is defined in functional terms is not sufficient to convert a claim element with that term into a means plus function clause. *See Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 1360 (Fed. Cir. 2004). In this case, the term “to lock” may be understood to mean “to fix or join firmly by interlacing or fitting of parts into each other.” (Pl. Reply Ex. 1.) The term “lock” in the context of the disputed phrase supplies a sufficient structure for construction of the claim: distal ends of the arms being structured to be urged toward each other and to fix or join firmly by interlacing or fitting of parts into each other into a common opening. *See id.* at 1359-60. That the phrase may cover a broad class of structures and may identify a structure by its function is not enough to convert the phrase into a means plus function clause. *See id.*

C. “the first and second legs having a compliant area, thus allowing the hanger to accommodate various size of transmission lines”

For the following reasons, this court construes the claim term “the first and second legs having a compliant area” in claims 1, 15, 31, 32, and 37-38 of the ‘543 patent to be clear on its face.

Beverly advocates limiting the construction of the term “compliant area” to a structure equivalent to flexible spring fingers based on the absence in the specification of any teaching of

the claim's reference to the "first and second legs having a compliant area." (Def. Mem. at 3.) Beverly relies on the specification's teaching of the compliant area [110] as existing between the mounting [100] and retaining section [102] at the opposite end of the hanger from the legs [14, 12] and the extended section [104], (*see* fig. 1, *supra*), as compared to the relevant claims' suggesting that the first and second legs having *their own* compliant area. According to Beverly, the disputed claims are broader than suggested in the teachings of the specification and so the claims would be invalid unless given Beverly's proposed construction.

Andrew first characterizes this argument as another attempt by Beverly improperly to limit the claims to the patent's preferred embodiments. Andrew also asserts that Beverly has misconstrued the preferred embodiments themselves by failing to understand that the hanger legs' compliant area is the area between the mounting and retention section and that the claims do "not require that the legs themselves have a compliant area, but rather that structure (e.g. a compliant area) be present in the overall device to enable the legs to be compressed toward each other and expand away from each other by spring force" and thus accommodate various sizes of lines. (Pl. Reply at 9-10.)

While the grammar in the claims is not the epitome of clarity, the prosecution history of the '543 patent leads the court to conclude that the disputed term is clear on its face; the "first and second legs having a compliant area" refers to compliant area 110 between the retention section and the mounting section. As relevant here, the Patent and Trademark Office ("PTO") rejected the claims 1-3, 6, 11-13, 15-18, 31, and 32 as being unpatentable over the "Thoen" invention. Thoen teaches:

stackable transmission hangers comprising a transmission line retention section (12) having a first and second legs (24). The first and second legs include a locking fastener

(28) configured to lock against an attachment surface (not numbered). A mounting section (34, 134) extends from the transmission line retention section including a lip (34) to be received in a square mounting hole (134) disposed on a second hanger. The retention section includes the first and second areas of resistance (the interior area of legs 24).

(Pros. Hist., Paske 84.) The Thoen invention did not make reference to any compliant area at all. During the prosecution of the ‘543 patent, Andrew on May 14, 2001 amended the claims in which the disputed terms appear to add in the language “having a compliant area” to overcome the patent examiner’s rejection. (Pros. Hist., Paske 92-100.) In its application explaining the amendments, Andrew stated that “Claims 1, 15, 31 and 32 have been amended to clarify that each of the first and second legs includes a compliant area, which enables the hanger to accommodate various sizes of transmission lines [Claims 37 and 38 were added as new].” (*Id.* at 102.) The amended language of “having a compliant area” could only refer to compliant area 110. The patent examiner rejected the claims because they were obvious given the prior art, which mentioned no compliant area, and so Andrew added the language of “having a compliant area” to explain that the legs worked in conjunction with the compliant area 110 to accommodate various sizes of transmission wire in order to overcome the patent examiner’s rejection. The court also notes that the initial application included compliant area 110; that the later amended language reuses the term “compliant area” suggests that the applicant was referring to the original compliant area 110. Additionally, the specification describes only one compliant area—compliant area 110—and makes no reference at all to separate compliant area in the legs.

Furthermore, Beverly’s proposed construction improperly imports a preferred embodiment of spring fingers into the invention, *see Phillips*, 415 F.3d at 1323, and the proposed construction undermines the principles of claim differentiation by rendering meaningless the

dependent claims' requiring of spring fingers, such as claim 9. *See Curtiss-Wright Flow Control Corp.*, 438 F.3d at 1380. The court finds that the disputed claim phrase requires no construction and can be given its ordinary meaning.

D. “the first and second legs allowing the hangers to accommodate various sizes”

For the reasons stated below, the court finds the term in claims 1, 2, 6, 7, 10, 12, 14, and 21-24 of the ‘305 patent to be clear on its face and therefore does not need this court’s construction.

Beverly contends that the term “the first and second legs allowing the hangers to accommodate various sizes” suffers from the same defect as the claims from the ‘543 patent referring to “the first and second leg having a compliant area” in that the specification does not sufficiently teach what structure should be used to accommodate the various sizes of line.

According to Beverly, “the ‘305 specification teaches that it is some structure, either the spring fingers 29 and/or the stops 30 in conjunction with either the compliant section or the extended section that permits the hanger to accommodate a large range of different transmission line diameters,” but the specification does not reveal how the “legs themselves” accommodate the various lines. (Def. Mem. at 6.) Beverly suggests the same construction as in subheading C, that the term be construed as “the first and second legs should include structure equivalent to either the spring fingers or the stops in order for the first and second legs to allow the hanger to accommodate different sizes of transmission lines.” (Def. Mem. at 6.)

The disputed term in the ‘305 patent does not raise the same issues discussed above as the disputed “compliant area” term from the ‘543 patent because the grammar used in the claims in the ‘305 patent could not suggest that there is a separate compliant area in the hanger legs

apart from the teaching in the specification of the location of the compliant area. Hence, there is no possible confusion between the terms used in the claims and those used in the specification, and the court may rely on the general principle that preferred embodiments in the specification should not be imported to confine the claims. *Phillips*, 415 F.3d at 1323. The court rejects Beverly's proposed construction because the proposed construction would improperly limit the claim to one of its preferred embodiments. The court finds the language of the disputed claim to be clear on its face and not in need of construction.

III. Disputed Claim Terms in Patent '056

A. "Clamping Engagement"

For the reasons stated below, the court construes the term "clamping engagement" in claims 19, 22, 37, 47, 50, and 54 to mean:

tight, high-pressure electrical contact maintained indefinitely.

To argue for their constructions, both parties cite to language from the summary of the invention section of the specification in part to argue for their constructions, which states:

The bail is rotated into its closed position with minimal effort by the installer thereby forcing the clip into tight engagement with the outer conductor. The tight engagement between the clip and the conductor of the cable ensures high pressure electrical contact as required when a high-power condition occurs in the cable from a lightning strike.

(Ex. 3, Col. 2, ln. 29-34.) The parties agree that clamping engagement means "tight engagement," based on the first sentence of the above-quoted language. Beverly, however, relies on the second sentence's explanation that a tight engagement "ensures high pressure electrical contact as required when a high-power condition occurs in the cable from a lightning strike," (Ex. 3, Col. 2, ln. 32-34,) to argue that the construction of clamping engagement must also incorporate the requirement that high-pressure contact be maintained over a period of time.

In further support of its construction, Beverly points to Andrew's description of the prior art and the failure of previous inventions to maintain high contact pressure over an extended period of time. (Ex. 3, Col 1, ln. 30-49.)

Andrew, however, argues to limit the construction of clamping engagement to mean that the "clip rests tightly against the exposed section of the electrical conductor," without reference to high-pressure contact. (Pl. Mem. at 13.) Refuting Beverly's construction, Andrew asserts that the high-pressure contact is only a desirable property and not a structural limitation. The court disagrees with Andrew's contention that the high-pressure contact was at most a desirable property. In reviewing Andrew's discussion of the prior art in the specification, the court determines that Andrew has differentiated the '056 patent from prior art in part on the invention's ability to maintain high contact pressure through the tight engagement of the clip with the outer conductor. Andrew notes that "Because grounding kits are designed for high current conditions, a high contact pressure must be maintained between the conductor and the ground wire," and that the prior art's copper straps and copper braided wires that wrapped around the conductor and attached to the ground wire would often loosen over an extended period of time. (*Id.* at Col. 1, ln. 30-50.) Andrew's invention was meant to address the need "for a durable grounding kit for transmission line cables that maintains high pressure contact with the cable over extended periods of time and after being subjected to multiple high-power conditions." (*Id.* at Col. 1, ln. 63-66.)

In support of its position that the clamping engagement does not include the defintion of high-pressured contact, Andrew cites to the prosecution history where the examiner found that the "applicant does not claim any of these noted benefits," (Pros. Hist., Harwath 109), in

response to Andrew's argument that the invention better retains the clip around the cable during power surges. (Pl. Reply at 12-13.) The court finds this citation to be not relevant to the issue of whether a clamping engagement should include the limitation of high-pressure contact maintainable indefinitely.

The court was also concerned with the timeframe for which the tight, high-pressured contact was maintained. At the oral argument, the court suggested that the contact be maintained over a period of multiple high-current conditions. Andrew clarified, however, that the contact was intended to be maintained "indefinitely," and so the court accepts Andrew's construction of the timeframe. (Tr. 15-16, ln.17-5.)

B. "a bail"

For the reasons stated below, the court construes the term "a bail" in claims 19, 22, 37, 47, 50, and 54 to mean:

a hinged band that secures the grounding clip to the electrical conductor.

Beverly asserts that the term bail should be construed to have a semicircular or hoop-like support having curved or arcuate shaped end portions based on an illustrated figure of a bail in the specification. Andrew counters that Beverly has improperly limited the bail to an illustration in the specification despite an absence of language in either the claims, specifications, or prosecution history that would suggest the limitation of a semi-circular or hoop-like shape.

The court finds that Beverly improperly imports limitations from an illustration of a preferred embodiment in the specification and rejects Beverly's construction that the bail is limited to a specific semi-circular or hoop-like shape. *See Phillips*, 415 F.3d at 1323 (Fed. Cir. 2005) ("Claims may embrace 'different subject matter than is illustrated in the specific

embodiments in the specification.”) (internal citations omitted). Furthermore, as Andrew points out, accepting Beverly’s construction would defy the principle of claim differentiation. *See Curtiss-Wright Flow Control Corp.*, 438 F.3d at 1380. Interpreting a bail to be limited to a semi-circular or hoop-like shape would render meaningless claim 30, which is a dependent claim to independent claim 22, and claim 30’s reference to a bail with a C-shaped profile. (Ex. 3, col. 10, ln. 6-7.)

C. “forcing said grounding clip into clamping engagement”

For the reasons stated below, the court construes the term “forcing said grounding clip into clamping engagement” in claims 19, 22, 47, 50, and 54 to mean:

The bail, once in its closed position, forces or retains the clip in tight engagement with the exposed portion of the conductor.

At issue is whether the bail alone is responsible for providing the force necessary to achieve and maintain clamping engagement when in the closed position, as Beverly contends that the specification teaches. Both parties look to the specification to support their positions. Beverly interprets the phrase in the specification that “in the closed position, the bail contacts the clip *so as to* force the clip into tight engagement . . .” (Ex. 3, Col. 2, ln. 15-16), to mean that the bail alone must provide this force.

The court agrees with Andrew, however, that the specification, and the ‘056 patent, do not so limit the bail only to forcing the clip into tight engagement with the conductor. In the context of the specification and prosecution history, “a patent applicant may consistently and clearly use a term in a manner either more or less expansive than its general usage in the relevant community, and thus expand or limit the scope of the term in the context of the patent claims.” *CollegeNet, Inc. v. ApplyYourself, Inc.*, 418 F.3d 1225, 1231 (Fed. Cir. 2005). The court finds

that the claim term's construction was used more expansively in the specification and thus broadened the claim construction. In the same paragraph of the specification from which Beverly cites to "the bail 30 forces the inner surface 14 of the clip 10 into tight, clamping engagement around the outer conductor 44" to support its own construction, there is language demonstrating that the applicant intended a broader meaning of the term, contrary to Beverly's construction. (Def. Mem. at 14 citing Ex. 3, Col. 5, ln. 12-13.) The last sentence of that same paragraph of the specification states that the "bail acts to further secure the clip on the outer conductor and *Maintain* tight engagement over an extended period of time." (Ex. 3, Col. 5, ln. 18-20 (emphasis added.)) The use of the term "maintain" in same context and paragraph as "force" leads this court to conclude that the "as to" language cited by Beverly was intended to be descriptive rather than limiting. Because the '56 patent's interchanges "forces" and "maintains," the construction "forces or retains" best describes the context in which the phrase is used.

D. "forcing said electrical conductor of said transmission cable through said axial opening"

For the reasons stated below, the court construes the term "forcing said electrical conductor of said transmission cable through said axial opening" in claim 37 to mean:⁶

The electrical conductor must be forced or pressed into the axial opening defined by the clip.

The dispute between the parties in essence is whether to give the term forcing its ordinary meaning, as Beverly seeks, or to construe forcing to mean passing or pressing, as Andrew contends. In support of Andrew's position, Andrew argues that the teaching and the prosecution

⁶Andrew cites to claims 19-20, 22, 24, 25, 27, 47, 50, and 53-54, none of which contain the disputed phrase, and so the court assumes Andrew's citations to be a typographical error. (Pl. Mem. at 14.)

history demonstrate that the term should be construed beyond its ordinary meaning. In support of its expanded construction, Andrew cites to a phrase in the specification referring to illustrated figure 5, which states that:

The clip 10, which has a C-shaped cross-sectional profile, is pressed over the outer conductor 44 as the rounded surfaces of the two folded portions 15a and 15b engaged the outer conductor 44. . . . With its C-shape the clip 10 acts like a spring by returning to its original position after the conductor 44 of the coaxial cable 40 has passed through the axial opening 17.

(Ex. 3, Col. 4, ln.57-59, 63-66.)

The court rejects Andrew's construction as too expansive based on Andrew's contention that the term forcing could mean pressing *or* passing. From the court's understanding of the context of the cited paragraph, the specification's use of the word "passed" was not meant as a teaching for the term "forced," but as a descriptive phrase, several sentences after the explanation of the action at issue. The court interprets the specification's use of the word "pressed" differently. The word "pressed" is a synonym in the context of the specification for the term forced, where "pressed" is used as a teaching for the action at issue. Additionally, without relying on dictionary definitions, the court notes that the definition of the word "press means to use continuous force.⁷ The court finds that the term "passed" within the context of the specification was not meant to expand the definition of "forced" beyond its ordinary meaning, while the word "pressed" in the specification is a synonym for "forced." Hence, the court construes "forcing" in this context to mean either forcing or pressing.

The court additionally disagrees with Andrew's assertion that Beverly "implies that

⁷Press is defined as: "To act upon (a body) with a continuous force directed towards or against it (the body by or through which the force is exerted being in contact with that acted upon)." See Oxford English Dictionary (2d ed. 1989), available at <http://dictionary.oed.com>.

‘forcing’ entails some degree of violent motion,” (Pl. Reply at 14); the court did not find Beverly’s memorandum to suggest the requirement of violent motion and Andrew does not provide a citation for its interpretation of Beverly’s position. Regardless, the court does not construe the term forcing to entail some degree of violent motion.

E. “forces said metallic grounding clip into clamping engagement”

For the reasons stated below, the court construes the term forces said metallic grounding clip into clamping engagement” in claim 37 to mean:

The bail in its closed position, contacts the grounding clip and retains or forces the clip into tight engagement with the exposed portion of the conductor.

The parties agree that this construction is identical to the construction of “forcing said grounding clip into clamping engagement” in subheading C. The court need not reiterate its reasoning for that construction here.

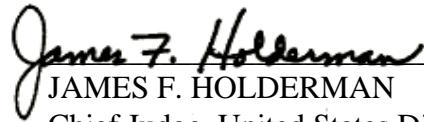
F. “Partially Circumscribing”

Based on the agreement of the parties , the court construes the term partially circumscribing in claims 22, 47, 50, and 54 of the ‘056 patent to mean:
to partially enclose or partially encircle.

CONCLUSION

For the reasons set forth above, the court has construed the disputed claims in the three patents. Beverly's pending motion to supplement its memorandum in support of its proposed claim construction of May 8, 2006 (Dkt. No. 174) is granted, although the court relied only on intrinsic evidence to construe the claim terms. Beverly's objections (Dkt. No. 198) are sustained. This case is set for a report on status on December 21, 2006. Counsel are requested to jointly prepare and file by December 18, 2006 a modified Fed. R. Civ. P. Form 35 setting forth their proposed schedule of dates to complete the necessary litigation events through the trial of this case.

ENTER:



JAMES F. HOLDERMAN
Chief Judge, United States District Court

Date: December 1, 2006